How did the questionnaire change in the Current Population Survey affect health insurance estimates?

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This presentation is released to inform interested parties of ongoing research and to encourage discussion of work in progress. Any views expressed on statistical, methodological, technical, or operational issues are those of the authors and not necessarily those of the U.S. Census Bureau.



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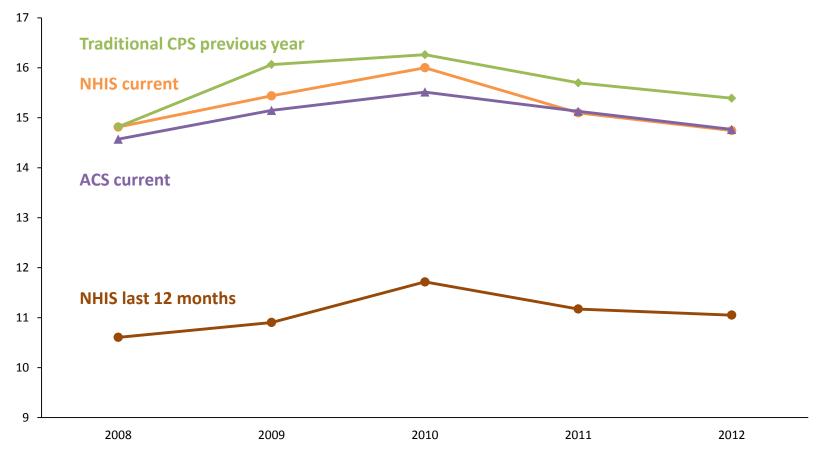
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Uninsured Rates: CPS, ACS, NHIS: 2008 to 2012

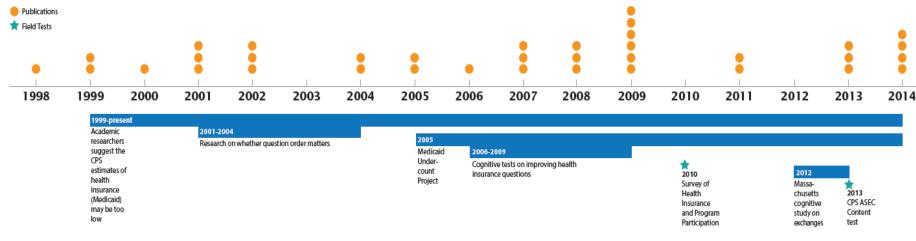


Source: 2008-2013 1-Year American Community Surveys (ACS); 2009 to 2014 Current Population Survey Annual Social and Economic Supplements (CPS ASEC); 2008 to 2013 National Health Interview Surveys (NHIS).



Improving Health Insurance Coverage Measurement: 1998-2014

A history of research and testing



1998 Counting the Uninsured: A Review of the Literature. http://www.urban .ora/publications/ 309032 html

1999 Methodological Issues in Measuring the Uninsured. http://www.cdc.gov /nchs/data/slaits/c onf07.pdf

> Misreporting Medicaid Enrollment: Results of Three Studies Linking Telephone Surveys to State Administrative Records http://www.cdc.gov /nchs/data/slaits/c onf07.pdf#Misrepor ting

2000 Alternative Ouestionnaire Design Strategies for Measuring Medicaid Participation

er_13509.htm

Experiment on Order Effects. http://www.amstat.org https://apha.confex /sections/SRMS/Procee .com/apha/128am dinas /techprogram/pap The Measurement

2001

of Medicaid Coverage in the SIPP: Evidence from California. 1990-1996 http://www.nber.org/p apers/w8514

The March CPS Health Insurance Verification Question And Its Effect On Estimates Of The Uninsured https://www.amstat.or a/sections/srms/Procee

dings/y2001/Proceed/0

0338.pdf

2002 Measuring Private The Characteristics and Public Health of Persons Coverage: Results Reporting State from a Split-Ballot Children's Health

Insurance Program Coverage in the March 2001 Current Population Survey http://www.census.gov/h hes/www/hlthins/public ations/asa02.pdf

The Effects of

Person-Level VS. Household-Level Questionnaire Design on Survey Estimates and Data Quality http://www.census.gov/s rd/papers/pdf/rsm2002-0

5.pdf The CPS Annual Social and Economic Supplement (ASEC) Health Insurance Verification **Question and Its** Effect on Estimates of the Uninsured http://www.census.gov/h hes/www/hlthins/public

ations/verification.html

2004 Medicaid and Medicare Reporting in Surveys: An Experiment on Program

Order Effects and Definitions. http://www.amstat.o rg/sections/srms/Pro ceedinas/v2004/files/ Jsm2004-000594.pdf

People With Health Insurance: A Comparison of Estimates From Two Surveys (CPS and SIPP) http://www.census.g ov/sipp/workpapt/w

p243.pdf

2005 2006 Medicaid Measuring Undercount Health Project - SNACC Insurance in http://www.census.gov the U.S. /did/www/snacc/index

.pdf

Under-Reporting of Medicaid and Welfare in the Current Population Survey

http://www.rand.org/p ubs/working_papers/ WR169-3.html

2007 Preliminary analysis of Medicaid Enrollment

https://www.amstat Status in the ora/sections/srms/n Current roceedings/y2006/Fi Population les/JSM2006-000900 Survey http://www.census. aov/did/www/snac c/docs/Preliminary-

> Health Insurance Estimates from Bureau:

pdf

Analysis-Mah-2007.

the U.S. Census Background for a New Historical Series June 2007 http://www.census. gov/hhes/www/hit hins/data/usemote/ revhith_paper.pdf

Measuring Health Insurance in the U.S. http://www.census. gov/srd/papers/pdf/

rsm2007-11.pdf

2008 Assessing Measurement Frror in Health Insurance Reporting: A **Oualitative Study**

of the Current Population Survey. http://www.inquiryjo urnalonline.org.pinna cle allenpress.com/doi /full/10.5034/inquiryjr nl_45.04.422

Medicaid Enrollment: The Relationships Between Survey Design, Enrollee Characteristics, and False-Negative Reporting http://www.census.go w/did/www/snacc/do cs/Lvnch_JSM.pdf

Medicaid Participants in the ACS Content Test http://www.census.go w/did/www/snacc/do cs/Medicaid-Participa

nts-ACS-Content-Test.

pdf

2009 Medicaid Underreporting in the CPS: Results from a Record Check

http://poq.oxfordjournals.org/content/early /2009/06/18/pog.nfp028.full.pdf

Misreporting Health Insurance Status: Medicaid Enrollees in the Medical Expenditure Panel Survey.

http://www.census.gov/did/www/snacc/do cs/Lynch_AAPOR_08-05-2009.pdf

Health Insurance Measurement: A Synthesis of Cognitive Testing Results.

http://wwwn.cdc.gov/QBANK/QUest/2009/ QUESTprogrElektronisk.pdf

Survey Measurement of Health Insurance Coverage Cognitive Testing Results of Experimental Questions on Integrated Current and Calendar Year Coverage. http://wwwn.cdc.gov/gbank/report/Pascale _Census_2009_HealthInsurance.pdf

Findings from a Pretest of a New Approach to Measuring Health Insurance in the Current Population Survey https://www.census.gov/srd/papers/pdf/rs m2009-07.pdf

The Influence of State-Specific, Programmatic Characteristics in the Modeling of Medicaid Undercount http://www.census.gov/did/www/snacc/do cs/FCSM_MStevens_Finalpdf

2011 Medical Out-of-Pocket Expenses, Poverty, and the Uninsured http://www.census.gov/ hhes/novmeas/methodo logy/supplemental/resea rch/Caswell-OHara-SGE2

011.pdf Medical Out-of-Pocket

> Spending Among the Uninsured: Differential Spending & the Supplemental

Poverty Measure http://www.census.gov/ hhes/povmeas/methodo logy/supplemental/resea

11-24-SEP0911.pdf Modifications to the Imputation Routine for Health Insurance in the CPS ASEC:

rch/Caswell-Short-WP20

Description and Evaluation http://www.census.gov/ hhes/www/hlthins/data /revhlth/SHADAC.pdf

2013 Preparing to Measure Health Coverage in Federal Surveys Post-Reform: Lessons from Massachusetts http://ing.sagepub 2014

Rates

014-08.pdf

Comparing 2010

Health Insurance

Offer and Take-Up

http://www.census.gov

/hhes/www/hlthins/pu

blications/sehsd_wp_2

Changing the CPS

Health Insurance

Implications On

The Uninsured

Production

Questions And The

Rate: Redesign and

Content Test

SIPP and 2013 CPS

.com/content/50/2 /106.long Comparing Errors in Medicaid Reporting Across Surveys: Evidence to Date

Estimates http://www.census.gov http://www.hsr.or /hhes/www/hlthins/pu blications/sehsd_wp_2 a/hsr/abstract isn 014-16.pdf aid=48331754539 SHADAC

Report: SHADAC Analysis of the Survey of Health Insurance and Program Participation http://www.shada

cora/files/shadac/

publications/SHIPP

_final_report.pdf

Non-response Bias in the 2013 CPS ASEC Content Test http://www.census.gov /hhes/www/hlthins/pu blications/sehsd_wp_2 014-17.pdf

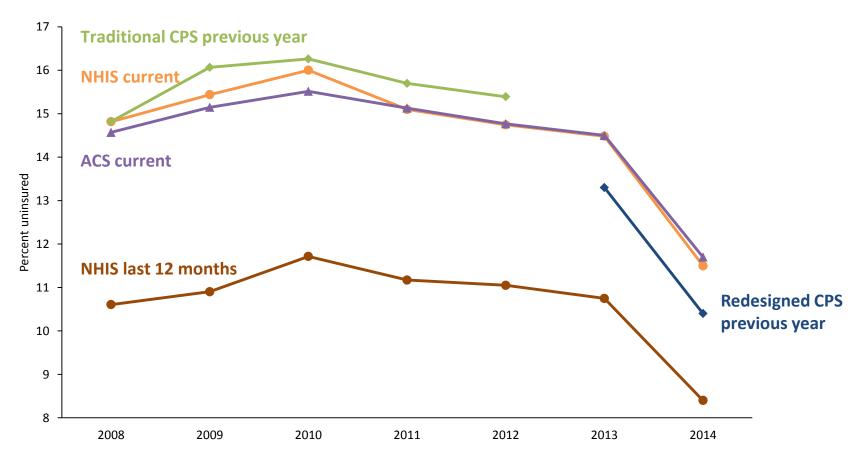
Understanding the New Current Population Survey Health Insurance Questions http://www.census.gov /srd/papers/pdf/RSM20 14-02.pdf



Health insurance questions

	Redesigned	Traditional
Reference period	Starts with current and then goes back to previous calendar year	Only asks about previous calendar year
Types of coverage	Starts with general question and then gets more specific	Laundry-list style questions
How questions are asked	Collected by person Also asks if others in household were covered by plan	Collected at the household level
New content	Marketplace participation Employer-sponsored insurance offers and take-up Revised Medical Out-Of-Pocket expenses	n/a

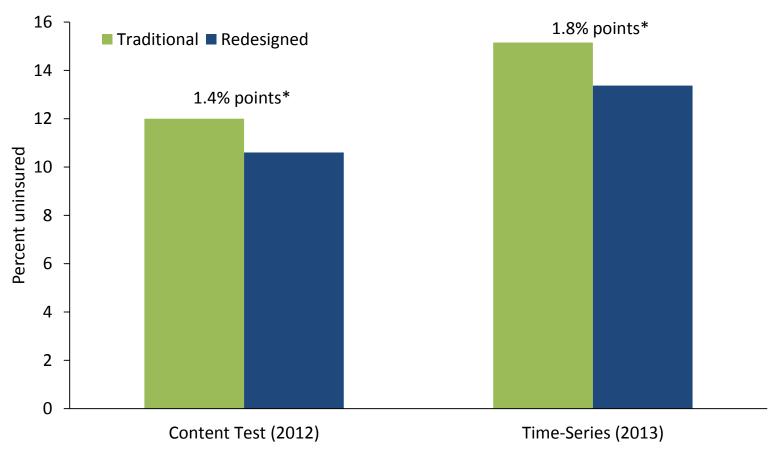
Uninsured Rates: CPS, ACS, NHIS: 2008 to 2014



Source: 2008-2013 1-Year American Community Surveys (ACS); 2009 to 2014 Current Population Survey Annual Social and Economic Supplements (CPS ASEC); 2008 to 2013 National Health Interview Surveys (NHIS).



Uninsured rate using traditional and redesigned questions in previous research



Content Test: Medalia, Carla, Brett O'Hara, Joanne Pascale, Jonathan Rodean and Amy Steinweg. "Changing the CPS Health Insurance Questions and the Implications on the Uninsured Rate: Redesign and Production Estimates." The Proceedings of the Federal Committee on Statistical Methodology (FCSM) Research Conference, Washington DC, November 2013. Time-Series: O'Hara, Brett and Carla Medalia. "Health Insurance in the CPS ASEC: Examining the 2014 'Break-in-Series'." Society of Government Economists, part of the Allied Social Science Association and the American Economic Association, Boston MA 2015.

* Statically significant at p< 0.1



What is Parallel?

- In 2015, Parallel Survey included traditional questions for both health insurance and income
- Replicates production environment
- Preliminary results
 - Recently processed
 - Subject to change based on further analysis

Why Parallel?

According to Public Law 113-235 Dec. 16, 2014, the budget for the Census Bureau stated:

That the Bureau of the Census shall collect data for the Annual Social and Economic Supplement to the Current Population Survey using the same health insurance questions included in previous years, in addition to the revised questions implemented in the Current Population Survey beginning in February 2014.

Objectives



- Questionnaire Change: Estimate effect of the questionnaire change on health insurance estimates (in 2014)
- Year-to-Year Change: Evaluate year-toyear change in the uninsured rate

Data

	CPS ASEC	Parallel	
Data collection period	Feb-April 2015	March and April 2015	
Health insurance questions	Redesigned questions	Traditional questions	
Income questions	Redesigned questions	Traditional questions	
Sample design	2010 and 2000	2000	
Sampling frame	Standard	83% retired sample; 17% reserve sample	
Sample (addresses)	99,500	28,000	
Reachable households	74,257	25,896	
Dropout before health insurance	23,344 (27.6%)	7,921 (30.6%)	
Mode	87.1% in person 12.9% telephone centers	65.9% in person 34.1% telephone centers	

Source: 2015 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) and 2015 Parallel Survey



Uninsured rate by survey

	CPS ASEC	Parallel
Uninsured rate, all ages	10.4	10.6

Source: 2015 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) and 2015 Parallel Survey

Uninsured rate by mode

	CPS ASEC	Parallel
Total	10.4	10.6
In person	11.0	12.0
Telephone centers	6.3	7.7

Source: 2015 Current Population Survey Annual Social and Economic Supplement (CPS ASEC) and 2015 Parallel Survey

Methods

- Calibrate samples: give the Parallel the distribution of characteristics in CPS ASEC
 - Survey mode (in person or telephone center)
 - ROAST (Race, Origin, Age, Sex, Tenure)
- Use person weights for both surveys
- Replicate weights for statistical significance

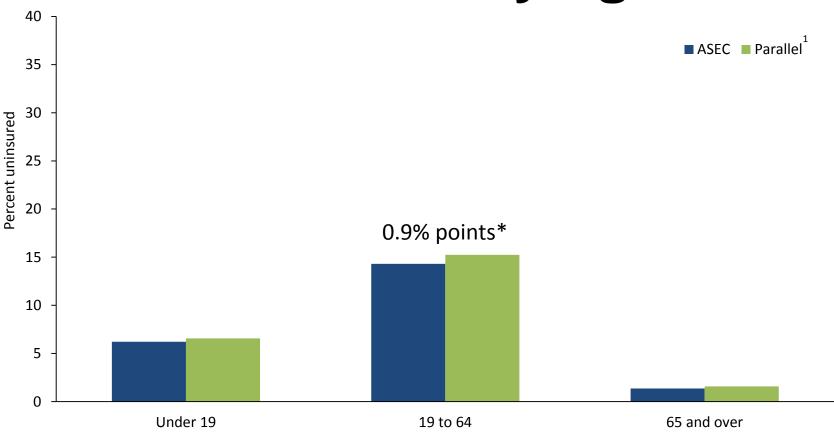
Note: Current Population Survey Annual Social and Economic Supplement (CPS ASEC)

Findings

	CPS ASEC	Parallel ¹	Difference
Uninsured rate, all ages	10.4	11.1	0.7*

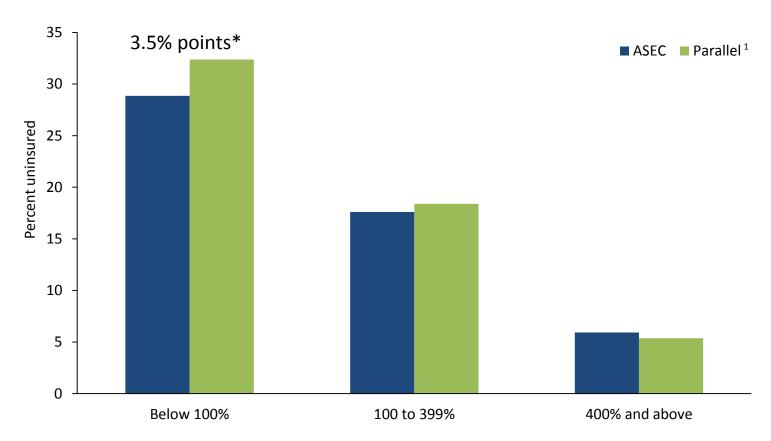


Uninsured by age



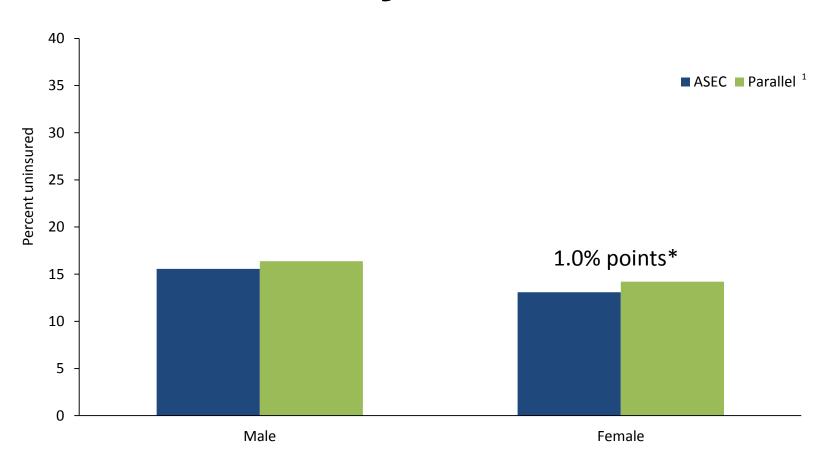


Uninsured by Income-to-Poverty Ratio (IPR): 19 to 64



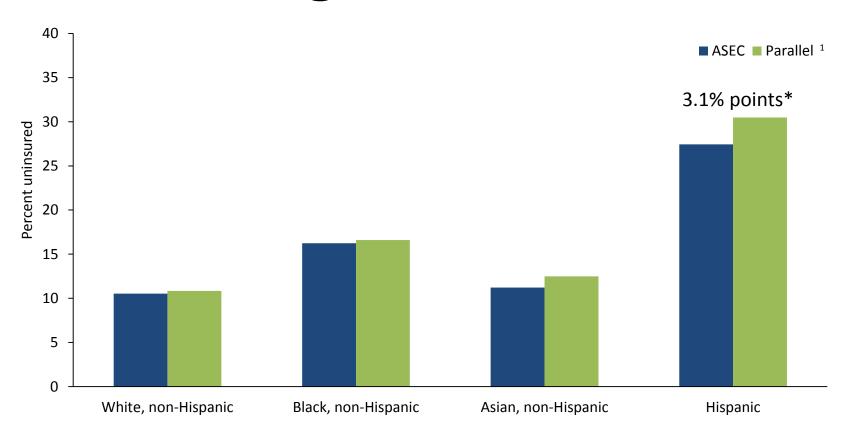


Uninsured by sex: 19 to 64



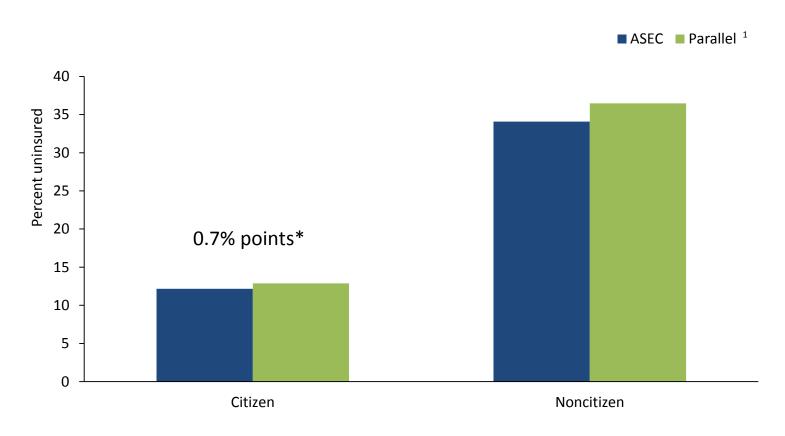


Uninsured by race and Hispanic origin: 19 to 64



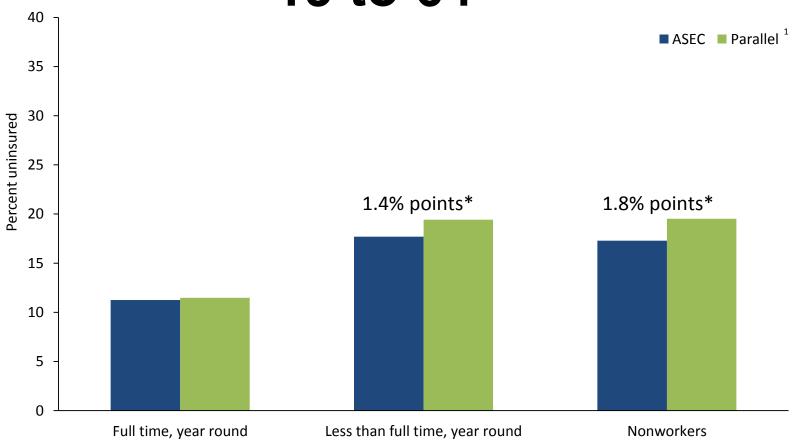


Uninsured by nativity: 19 to 64



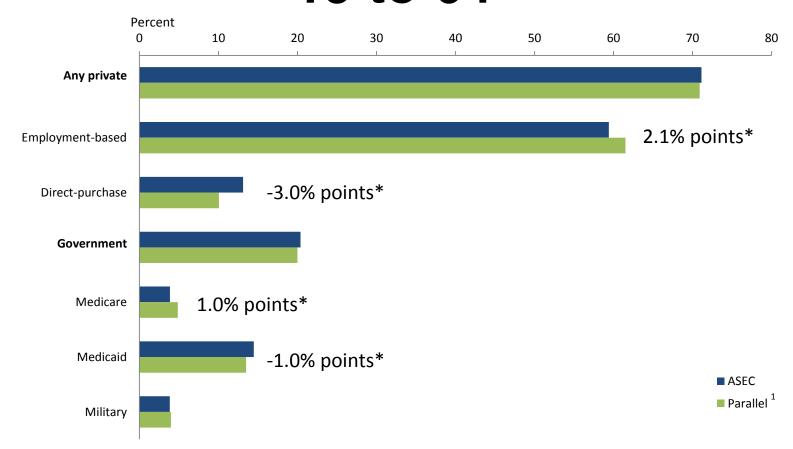


Uninsured by work status: 19 to 64





Health insurance types: 19 to 64



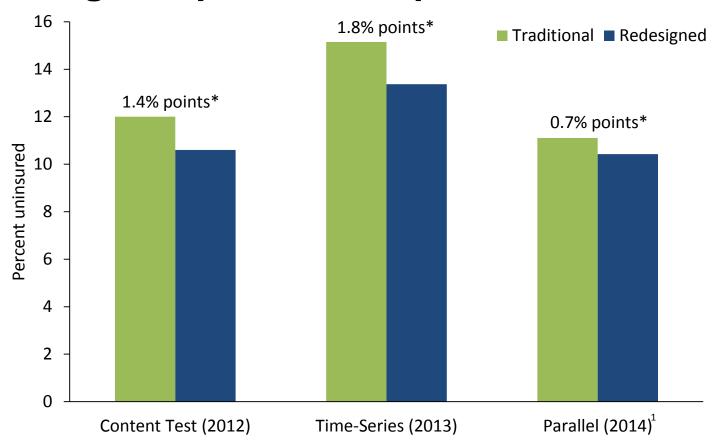


Conclusion

- Before calibration, no difference in uninsured rate
- After calibration, the uninsured rate was higher in Parallel¹ than in CPS ASEC
- Uninsured rate was higher in Parallel¹ for working-age population, and for subgroups:
 - Hispanics, people in poverty, those working less than full time, year round, nonworkers, and citizens
- Parallel¹ had a lower rate of direct-purchase and Medicaid than CPS ASEC, while Parallel¹ had a higher rate of employment-based and Medicare



Uninsured rate using traditional and redesigned questions in previous research



Content Test: Medalia, Carla, Brett O'Hara, Joanne Pascale, Jonathan Rodean and Amy Steinweg. "Changing the CPS Health Insurance Questions and the Implications on the Uninsured Rate: Redesign and Production Estimates." The Proceedings of the Federal Committee on Statistical Methodology (FCSM) Research Conference, Washington DC, November 2013. Time-Series: O'Hara, Brett and Carla Medalia. "Health Insurance in the CPS ASEC: Examining the 2014 'Break-in-Series'." Society of Government Economists, part of the Allied Social Science Association and the American Economic Association, Boston MA 2015. Parallel¹: Data have been calibrated to the CPS ASEC by mode and ROAST (Race, Hispanic Origin, Age, Sex and Tenure)





Discussion

- What can explain? Same survey instrument,
 but there are other differences
 - Sampling frame and sample design, survey mode
 - Affordable Care Act:
 - Could differentially affect surveys
 - Awareness of health insurance
 - Unobserved heterogeneity

Thank you!

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